DAU Acquisition Training Symposium

Performance of the Defense Acquisition System

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***BLUF*: Analyzing Institutional Outcomes to Measure and Inform Policies**

- **Seeing some progress in performance**
  - Program-level data
  - MDAP contract data
  - **Recent cost growth on major programs is mostly flat or improving**
  - **Some measures since inception still showing increases**
  - **Cost outliers remain**

- **Other measures have mixed implications**
  - **Contract cycle times are declining**
  - **First-tier subcontractor margins were generally higher than prime-contractor margins (sample of major programs)**

(see reports at* www.acq.osd.mil/news.html*)

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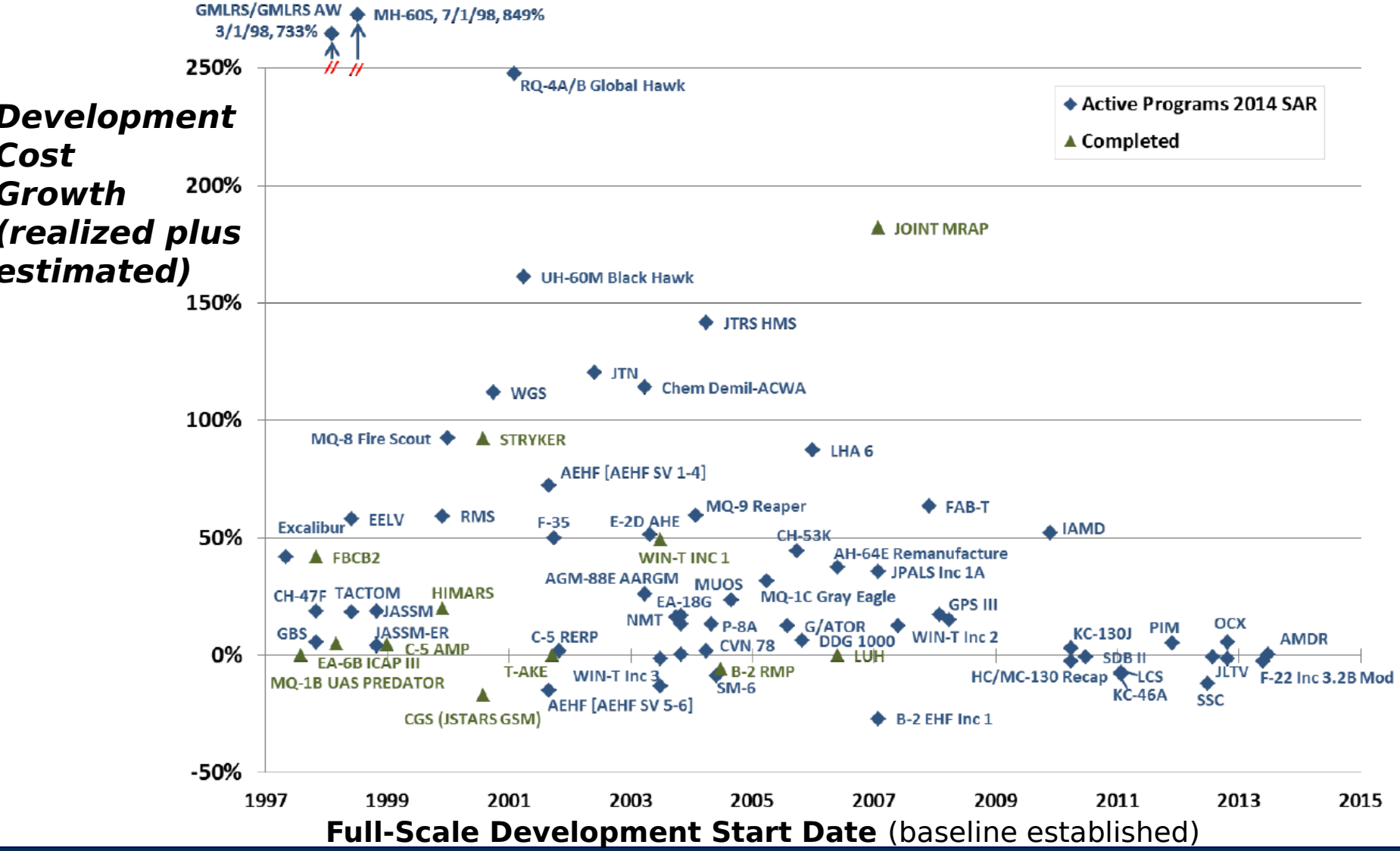
- **Katrina McFarland, ASD(A)**

Individual program performance shows outliers.

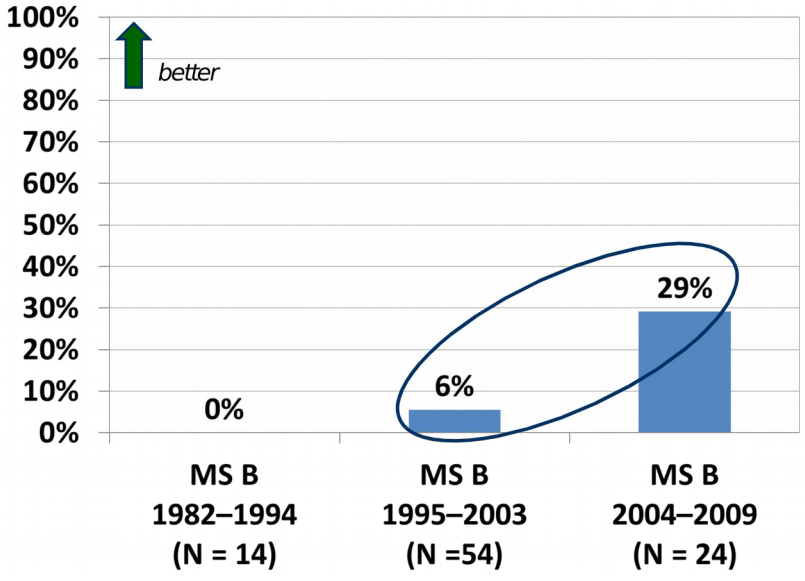
Hard to identify trends from scatter plots.



Proportion of Major Programs with Cost Reductions Relative to Original Baseline

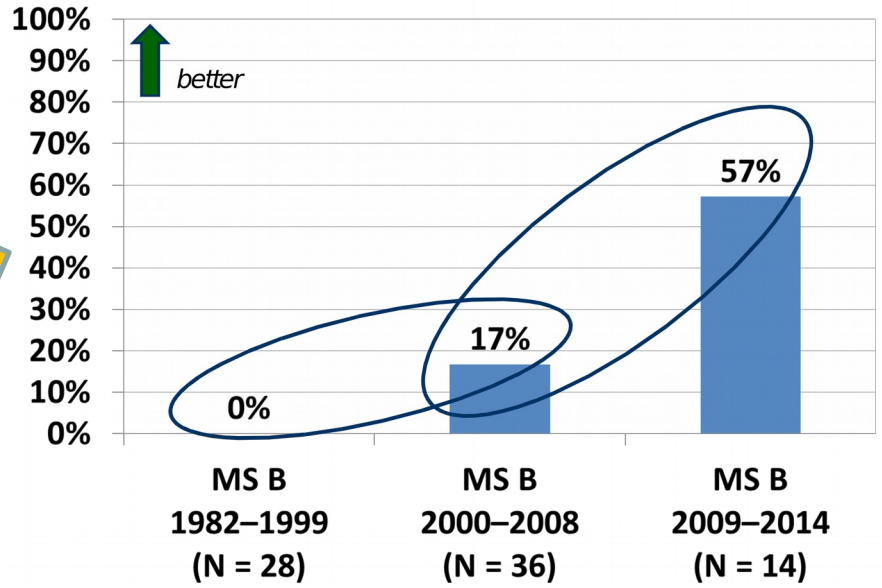
Development

As of 2009:



Upward shift

As of 2014:



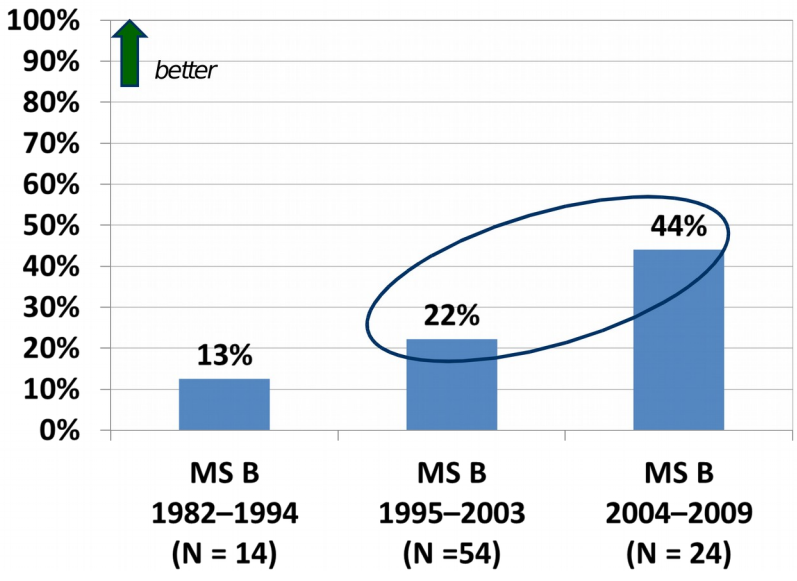
Significant positive shift from 2009 to 2014

statistically significant difference

Proportion of Major Programs with Cost Reductions Relative to Original Baseline

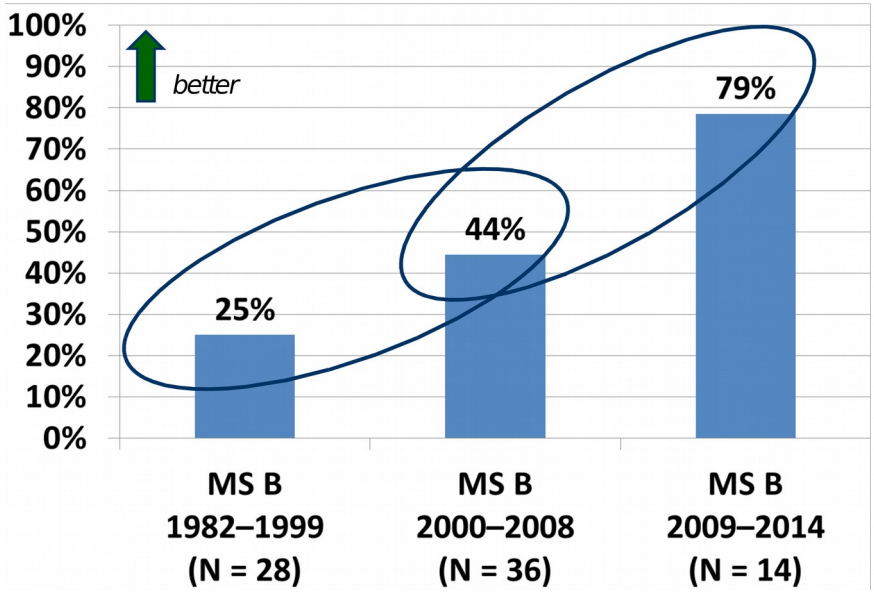
Production

As of 2009:



Upward shift

As of 2014:



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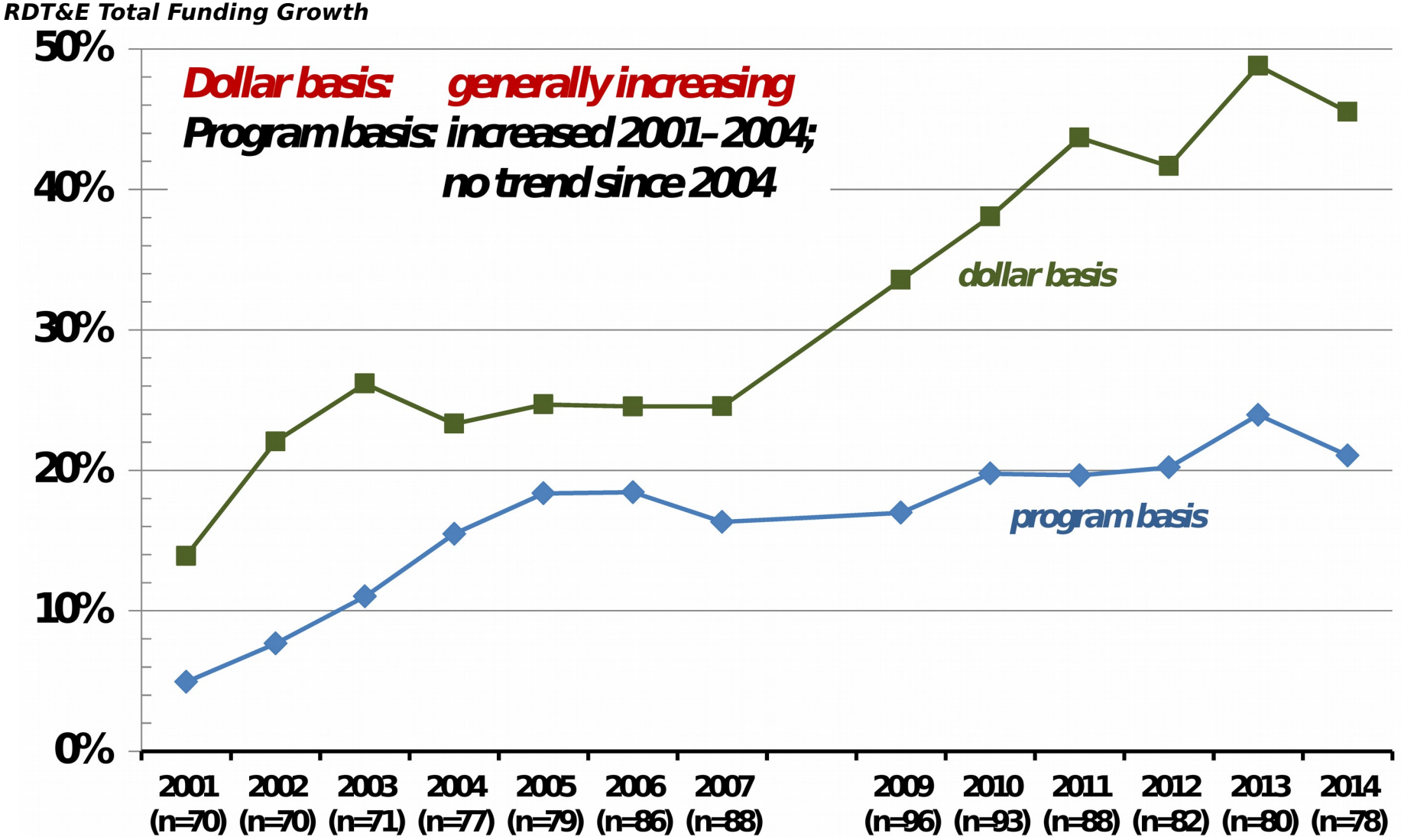
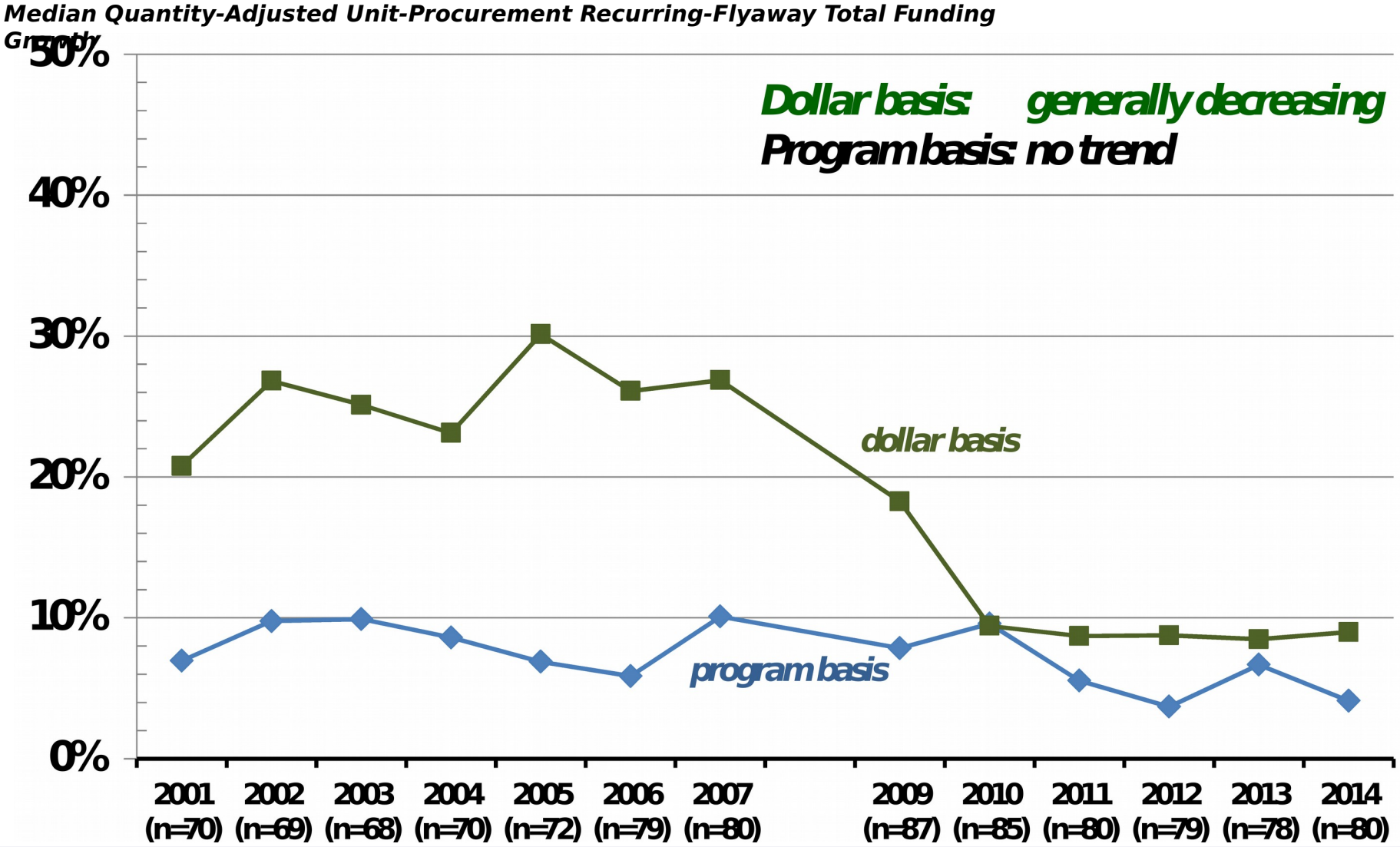
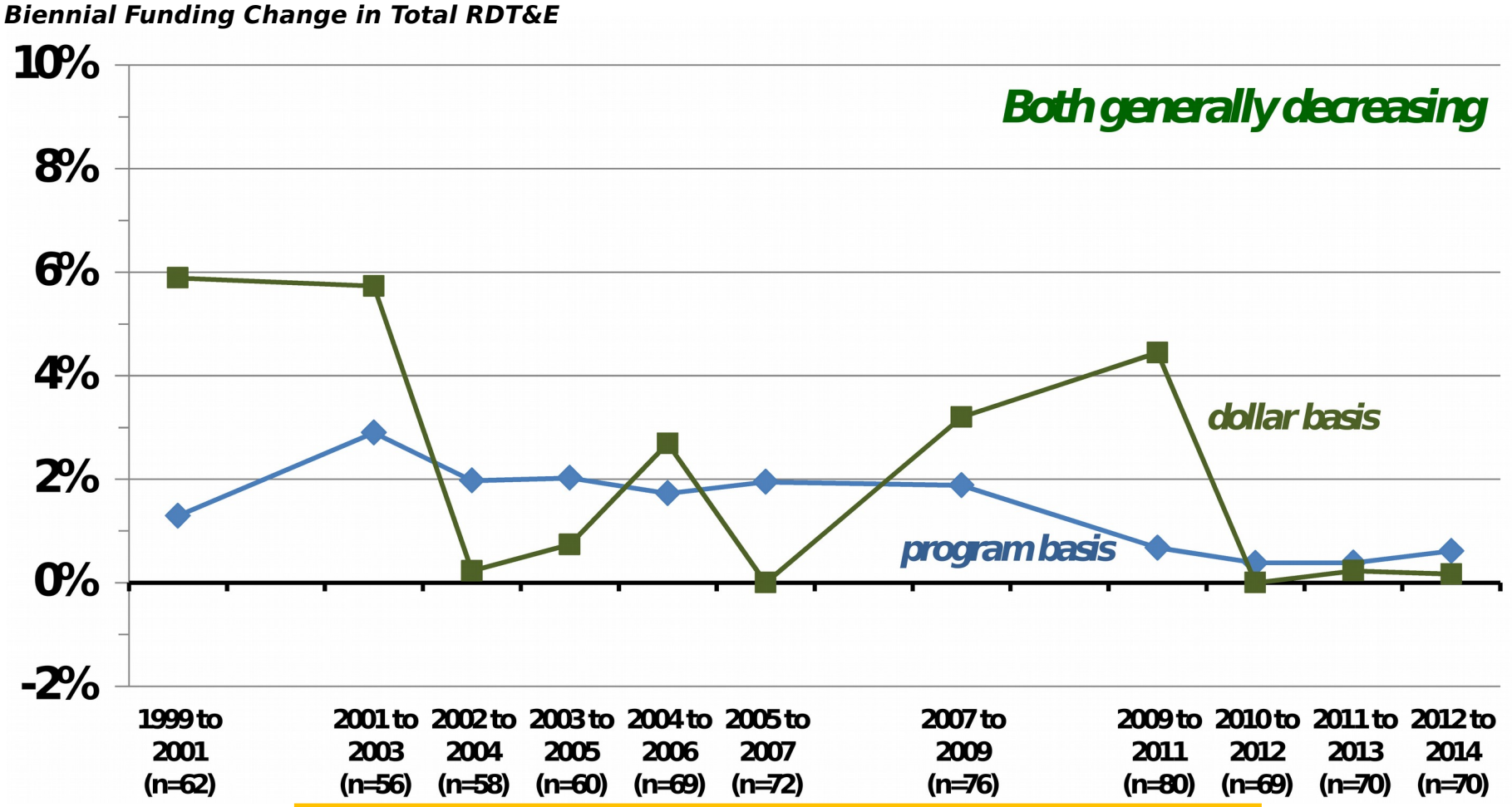
Median Total Development Cost Growth — Major Programs



Median Total Procurement Cost Growth — Major Programs



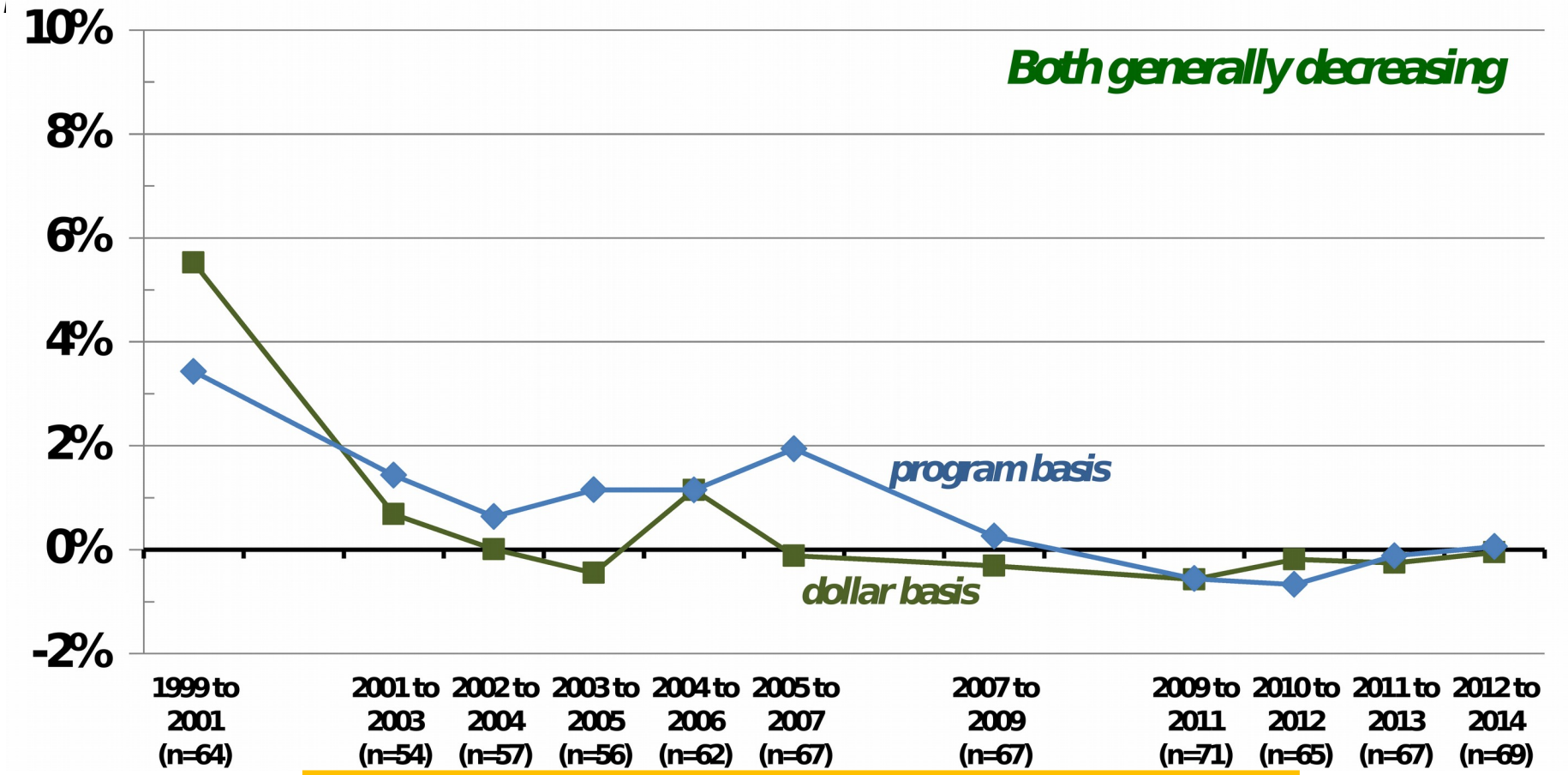
Median Biennial Change in Development Costs — Major Programs



Median biennial change in program total funding needed has been near zero since 2010

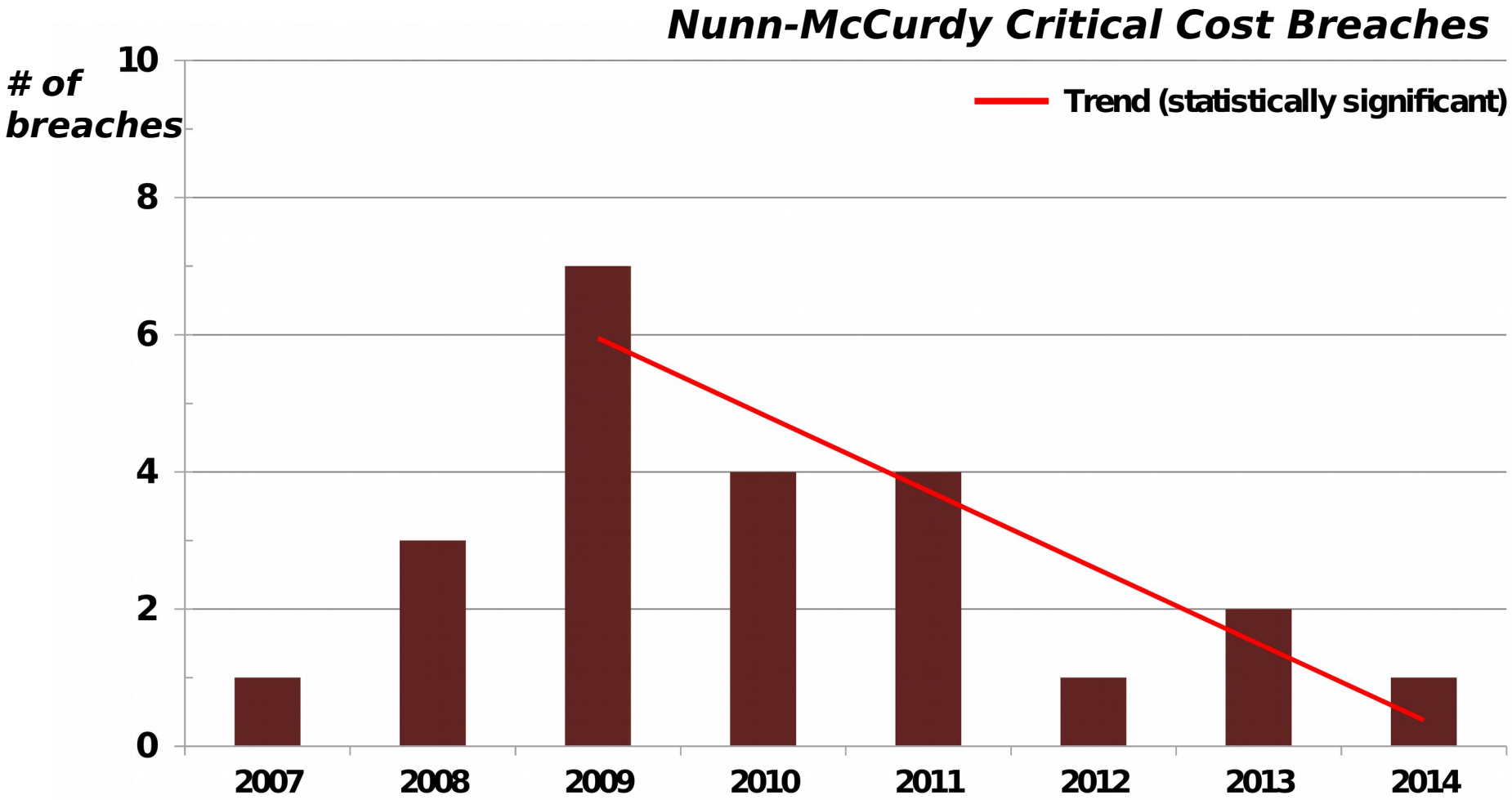
Median Biennial Change in Procurement Costs — Major Programs

Biennial Funding Change in Total Quantity-Adjusted Unit-Procurement Recurring-



Median biennial change in program total funding needed has been near zero since 2009

Major Programs Crossing Congressional Cost-Growth Thresholds

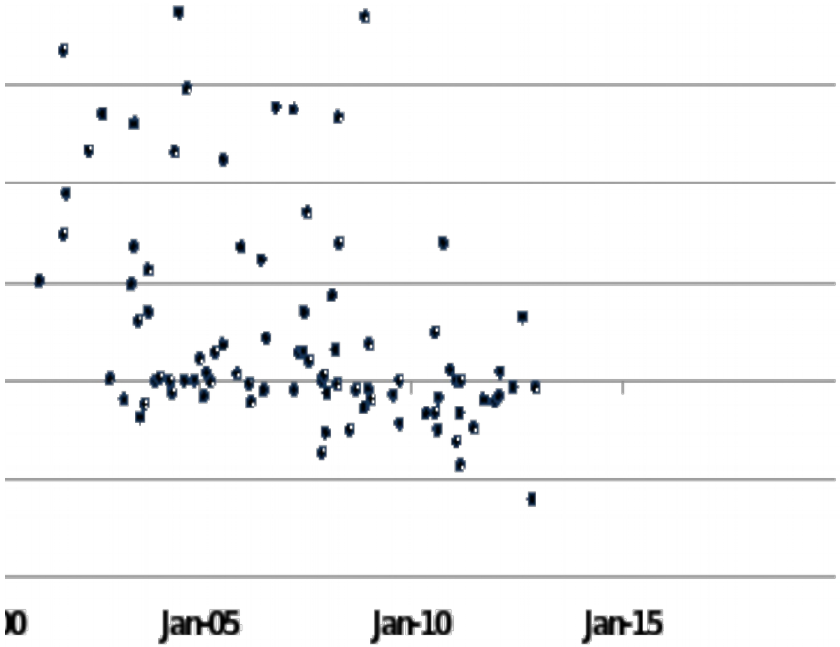


Fewer major programs are crossing Congressional cost-growth thresholds

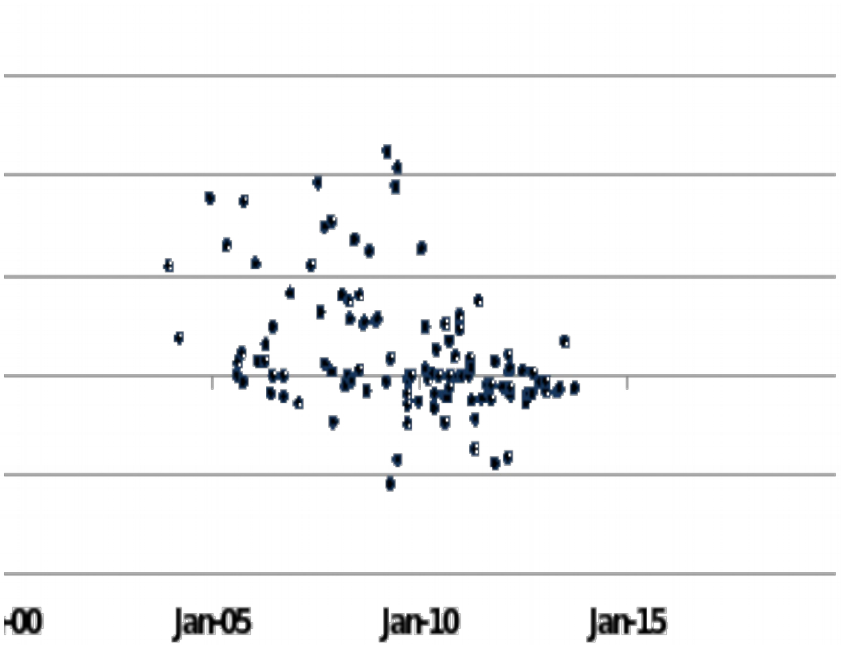
Major Program Contract Costs Related to Targets

Cost-Over-Target on Contracts for Currently Active MDAPs (controlling for inflation)

Development



Early Production

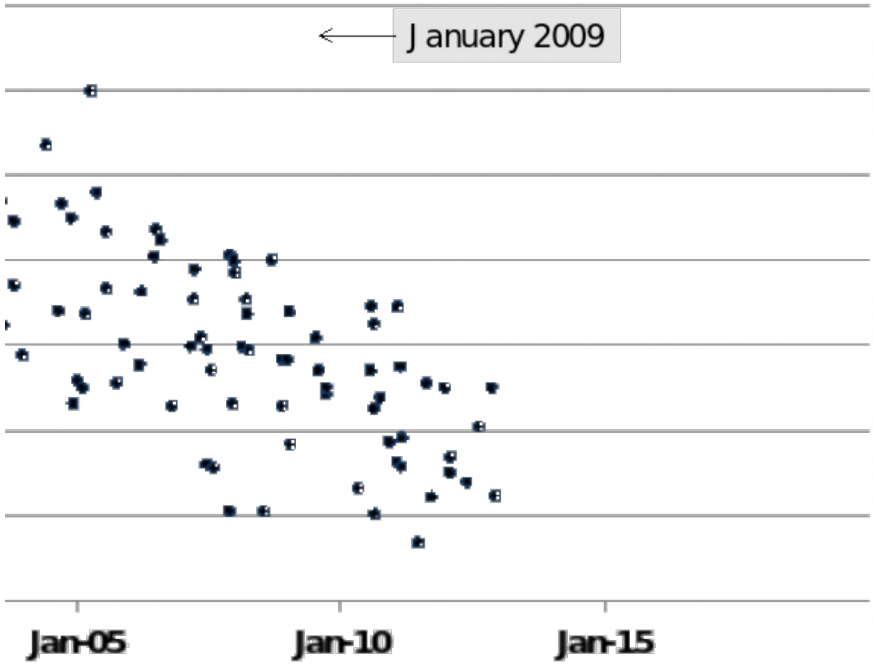


(not firm-fixed price contracts)

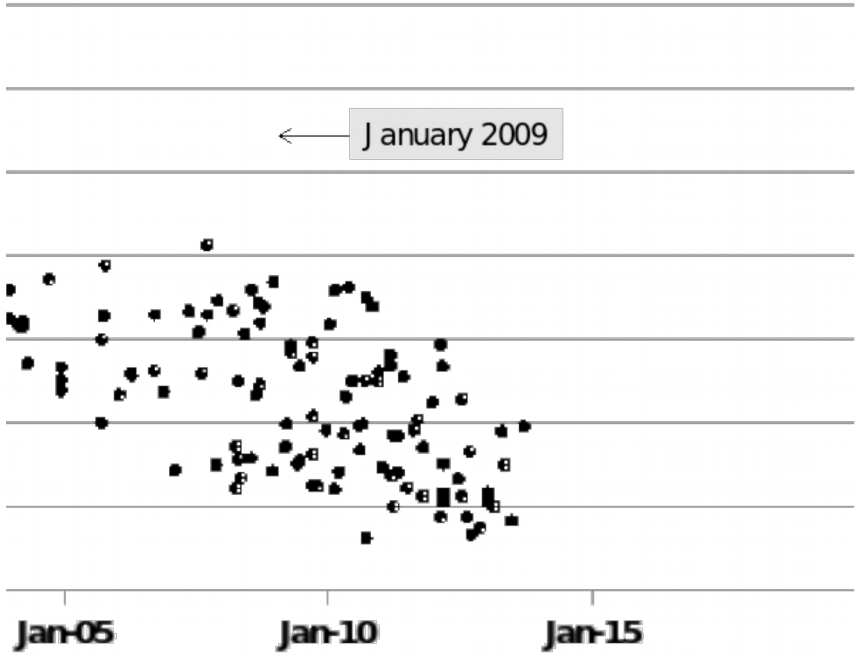
Major Program Contract Lengths

Contract Cycle Time for Currently Active MDAPs

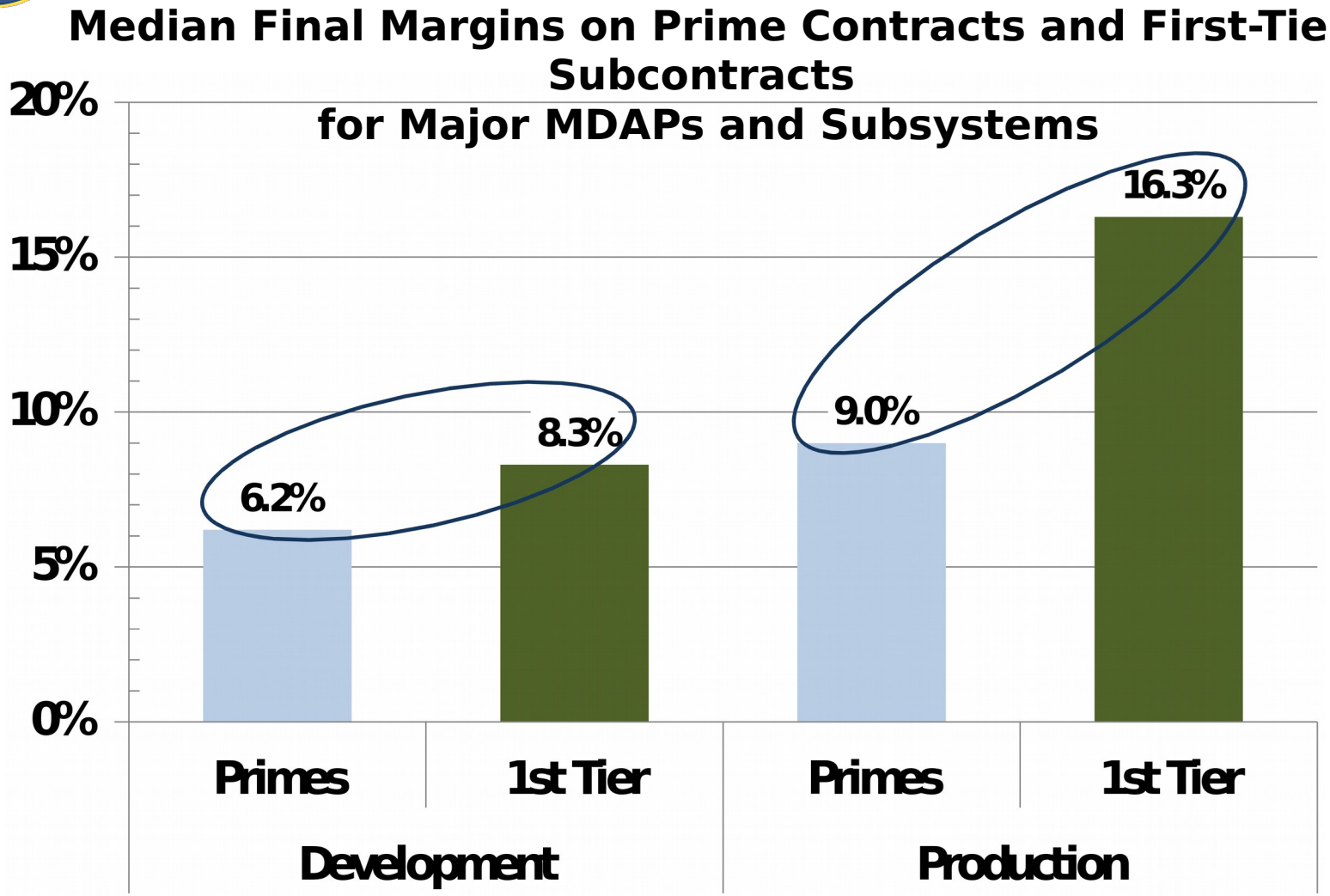
Development



Early Production



Program Contract Final Margins: Prime and First Tier



Completed contracts, mostly for MDAPs.
Most contracts started between 2000–2010.

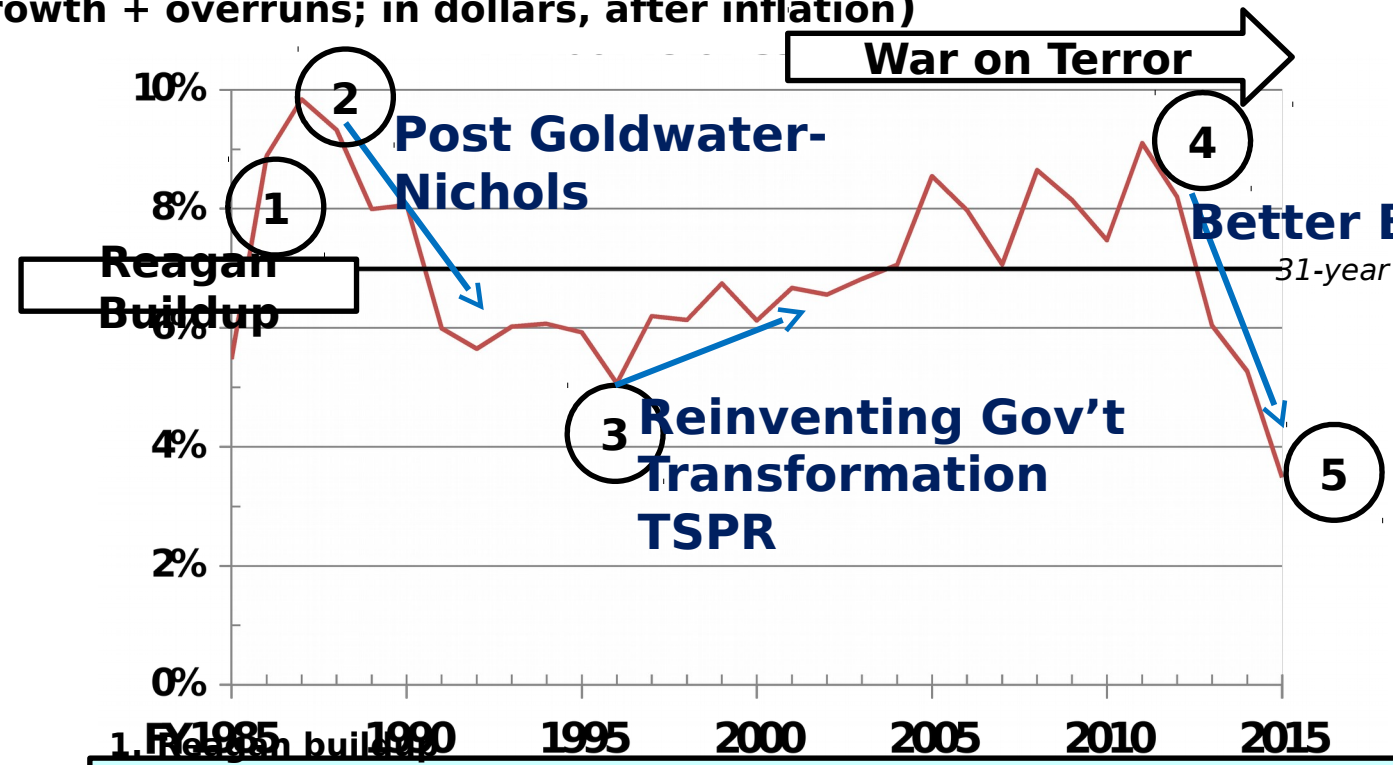
statistically significant difference

5-year Moving Average of Annual Growth of Contracted Costs

(largest contracts on major programs, 1985–2015)

ntract Growth: Development and Early Production

ope growth + overruns; in dollars, after inflation)

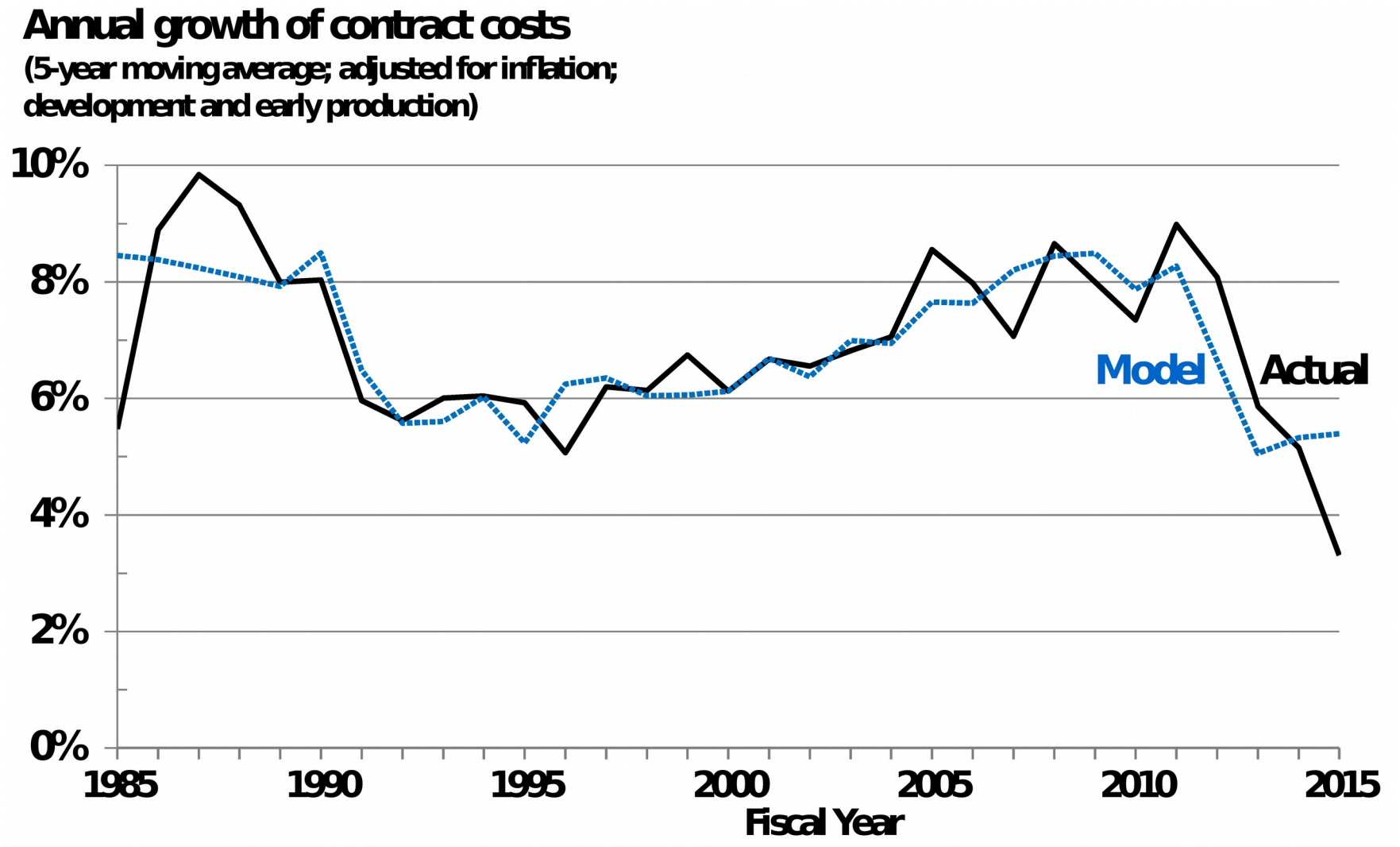


1. Reagan buildup
2. Goldwater-Nichols (G-N) preceded a steep decline in the 5-year moving average. 5-year moving average hit a peak of 9.8% annual cost growth in 1987.
3. Reforms in mid-1990s precedes rise in 5-year moving average.
4. After local peak of 9.1% in 2011, we see a steep, sustained decline in the 5-year moving average of annual cost growth.
5. In 2015, the 5-year moving average of annual cost growth is at its lowest point (3.5%) since before 1985. Sustained lower cost would lower overall [illegible]

5-year moving average of annual growth in contracted total costs relative to negotiated cost targets on major contracts of Major Defense Acquisition Programs (MDAPs), as well as major automated information systems (MAIS) that are MDAPs, in Engineering and Manufacturing Development (EMD) and early production that reported earned-value (EV) data (i.e., almost no firm-fixed price or full-production contracts). This is different than statutory measures of program cost growth relative to Milestone B baselines. TSPR = Total System Performance Responsibility

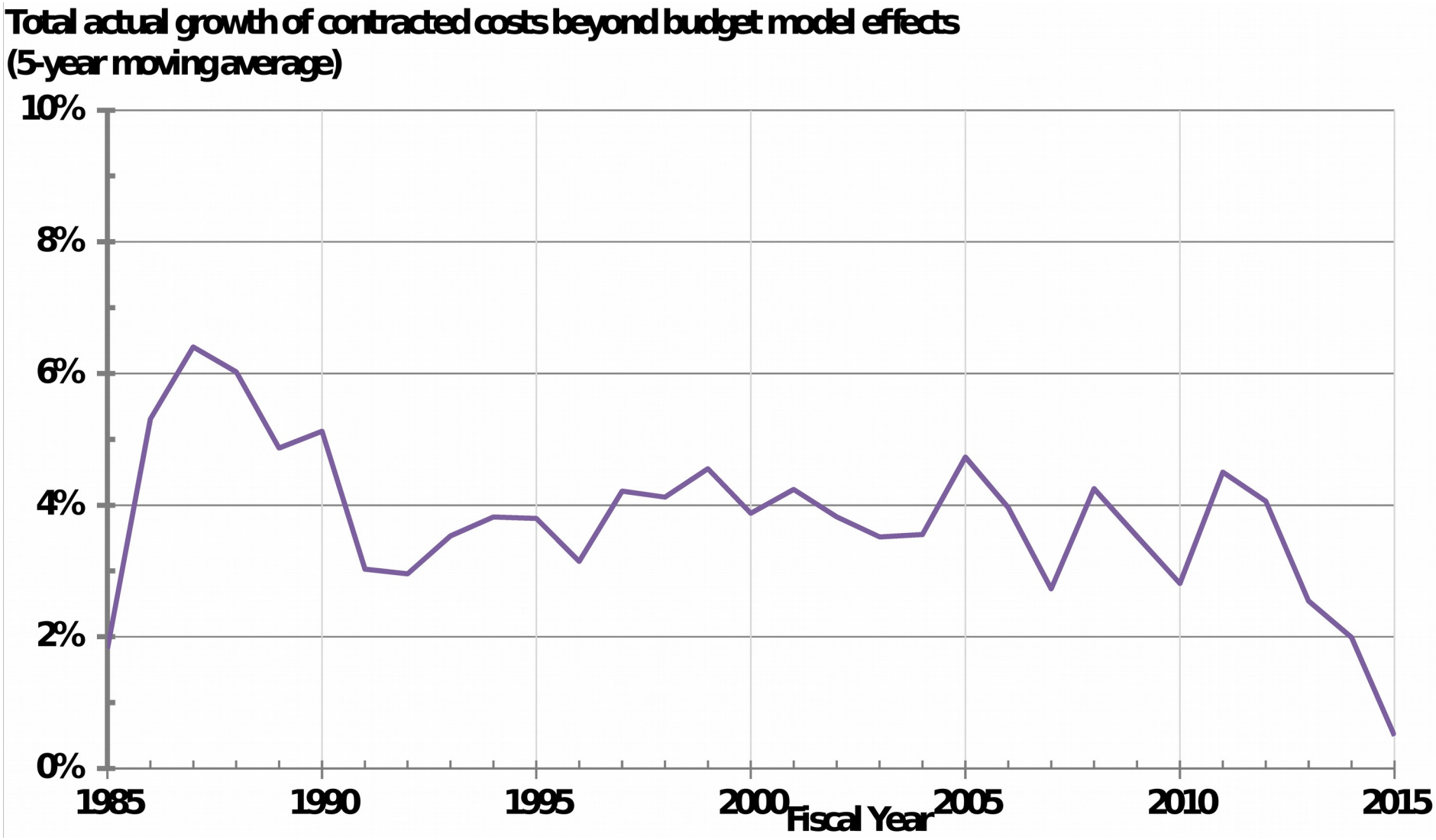
n = 1,123 contracts for 239 programs

Fit of Statistical Model to Actual Growth of Contract Costs



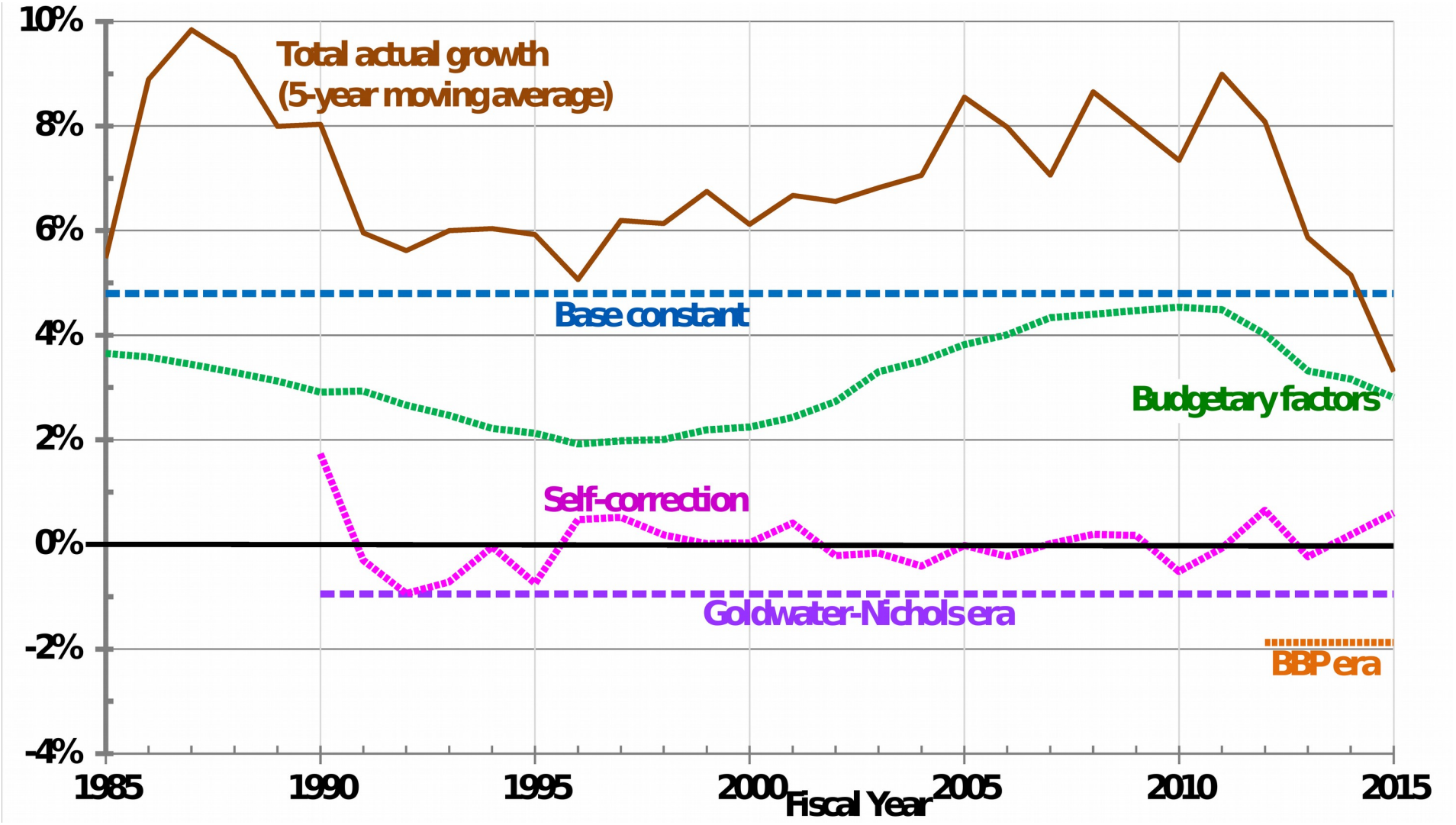
Actual Growth Less Modeled Budget Effects

(FY1985–2015)



Contributing Factors: Annual growth of EV contract costs

(5-year moving average; FY1985–2015)



Summary: Analyzing Institutional Outcomes to Measure and Inform Policies

- **Recent MDAP cost-growth improvements in different measures**
  - **Program data**
    - **Projecting savings (below baseline)**
    - **Median biennial cost growth**
    - **Procurement cost growth since inception**
    - **Nunn-McCurdy breaches**
  - **Contract data**
    - **Contract cost growth-over-target**
    - **Annual growth in contracted costs**

- **Room for more improvement**
  - **MDAP development cost growth since inception on dollar basis**
  - **Others**

- **Mixed implications**
  - **Declining contract cycle times**
  - **First-tier subcontractor margins higher than for prime-contractors**

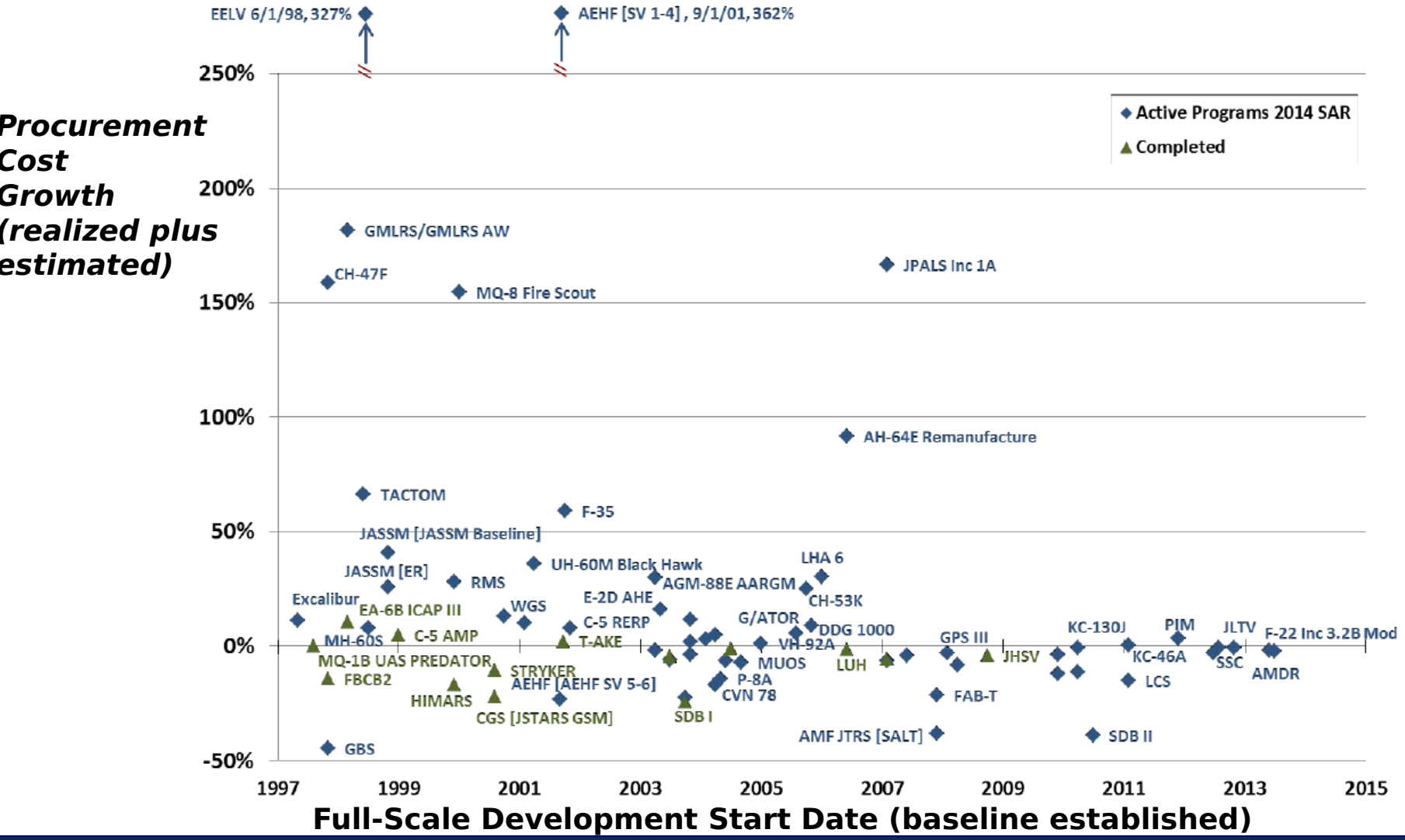
Referenced reports: **www.acq.osd.mil/news.html**

Questions?

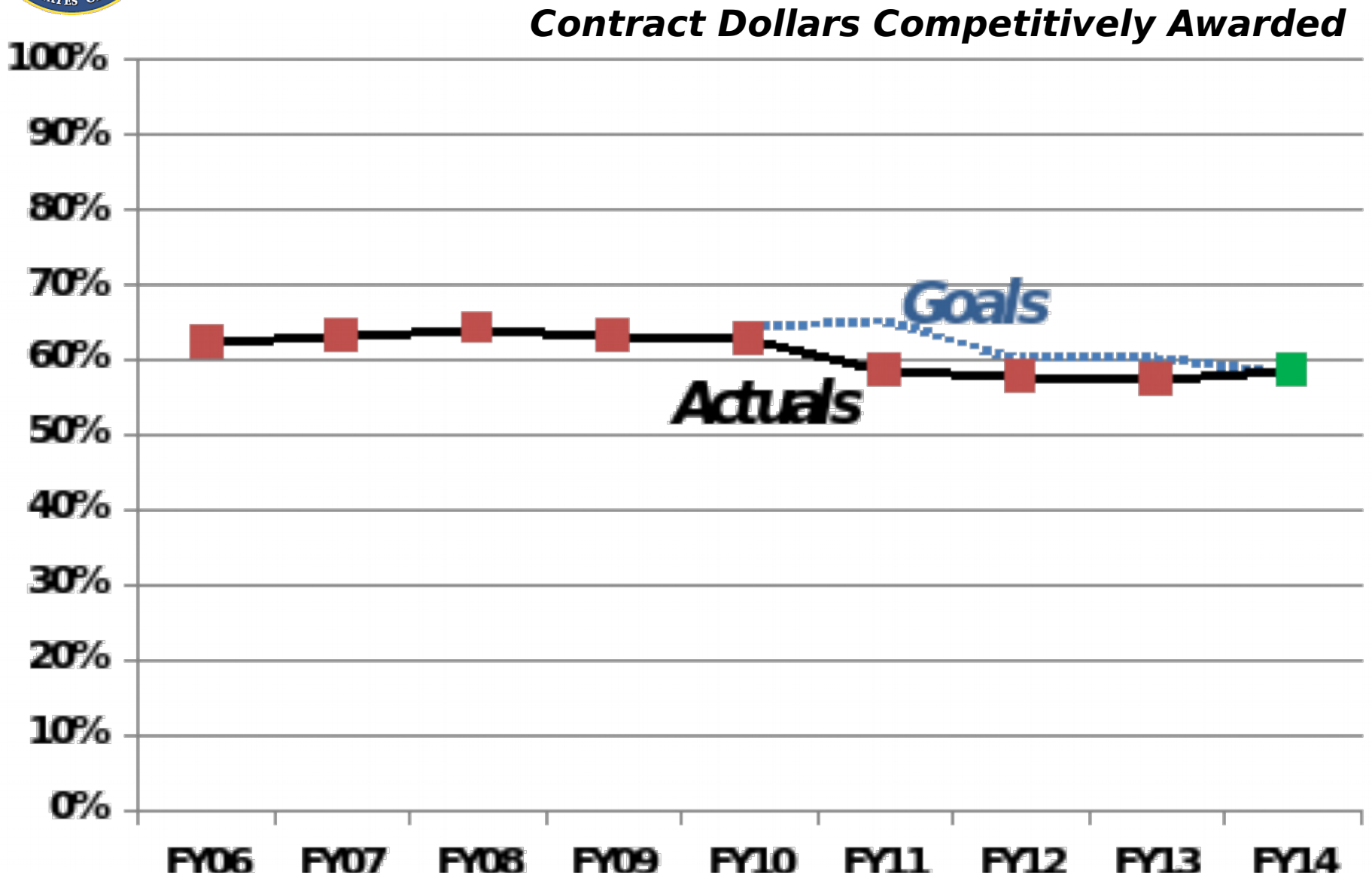
Additional Slides

Procurement Cost Growth — Major Programs

Cumulative Growth Over Original MS B Baseline of
MDAP Planned Total (From Start to Completion)
Quantity-Adjusted Unit-Procurement Recurring-Flyaway Funding
(controlled for maturity; 1997–2015)



Competitive Contracting



Small-Business Utilization